

SPINAL COCAINIZATION

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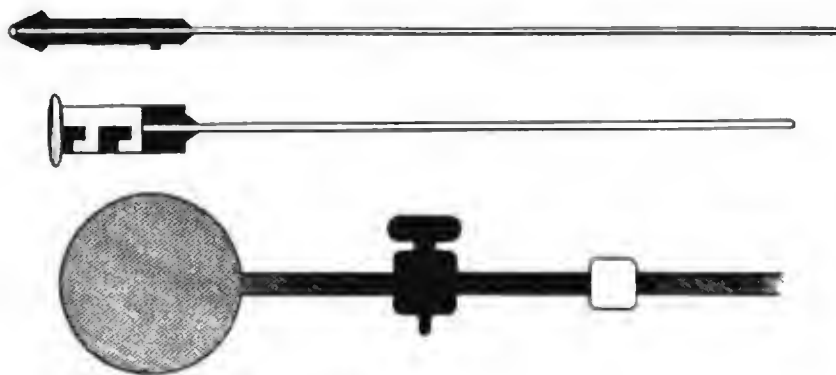
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THE ability to produce anæsthesia by the injection of cocaine into the spinal-cord is regarded as one of the most interesting discoveries of the day. While under this anæsthetic the patient is perfectly conscious and fully aware of everything taking place. At the same time she is without any sense of pain, though retaining sense of touch.

This mode of anæsthesia may be adopted when for any reason a patient objects or is unable to take ether or chloroform.

INSTRUMENT

The instrument used is a double needle, the finer needle fitting inside the heavier. The fine needle is four and a half inches long, being one-half inch longer than the heavy needle. A piece of rubber tubing one inch long connects this needle with a small glass bulb; this bulb again connects with a similar piece of tubing. This tubing is attached to a silver stop-cock which connects with another piece of tubing ending in a rubber bulb. The stop-cock is used to preserve the vacuum which is created in the bulb. This entire outfit is boiled.



Drawings of the necessary instrument for spinal cocaine injection.

Two aseptic hypodermic syringes are also required, glass syringes, as they may be boiled, being preferred. One syringe is fitted with the usual hypodermic needle and the other contains the cocaine for spinal injection.

PREPARATION OF COCAINE

The cocaine may be prepared in various ways:

1. Add forty minims of sterile water to cocaine, hypodermic tablets, one grain, boiling this solution one minute.
2. Place cocaine, one grain, hypodermic tablets, in sterile glass, adding enough chloroform to dissolve cocaine. This mixture is rubbed up until the chloroform evaporates. To the remaining sediment is added forty minims of sterile water. The solution is now ready for use.

POSITION AND PREPARATION OF PATIENT

The patient usually sits on operating-table, bent forward, the elbows resting on the thighs. In cases where the patient is unable to take this position the Sims position may be used.

The back is prepared in the same way as for any operation. The dressing is removed when the patient is in position, and the back is again scrubbed. A sterilized sheet is placed over the patient. The opening in the sheet must be large enough to allow the surgeon space for necessary measurements.

INJECTION OF THE COCAINE

Everything being in readiness, ten minims of this prepared cocaine is injected into the skin over the space between the third and fourth lumbar vertebræ. When sufficiently anesthetized, a small incision is made. The needles, being put together, are now inserted and are attached to the exhausted bulb with rubber tubing and glass bulb. When the needles have pierced the meninges surrounding the filaments of the cauda equina the stop-cock is opened, and almost immediately the cerebro-spinal fluid appears in the glass bulb.

Should this fluid not appear, the inner needle is withdrawn, a wire run through to displace any possible clot, and then it is reinserted, being again attached to the exhausted bulb.

The advantage of the double needle is here apparent. The inner needle being withdrawn, the outer needle remains stationary, thus preventing, in the reinsertion, another puncture of the meninges.

When the cerebro-spinal fluid appears, the glass bulb is detached from the rubber tubing and the syringe attached, containing twenty minims of the cocaine solution, this amount equalling one-half grain.

One minute is taken to inject this quantity, and it is followed immediately by ten minims of sterile water, which fills the needle. The needles are then withdrawn and sterilized, and adhesive plaster is placed over the incision.

Patient now assumes a recumbent position on operating-table, and tests for anæsthesia are begun at once.

EFFECT OF ANÆSTHETIC

The feet are usually anæsthetized first, the time taken being from one to five minutes, and very soon the patient is anæsthetized to waist line.

The height to which the anæsthesia goes varies with the individual. Frequently it goes as high as the third rib, and in some cases the face and part of the scalp have been anæsthetized.

The pulse usually remains regular, from eighty to one hundred beats per minute, and the respirations are natural. The patient has peculiar pallor and free perspiration. Invariably she becomes nauseated, though vomiting may be prevented by giving strong, clear coffee to drink. Anæsthesia lasts one hour and sometimes a little longer.

AFTER-EFFECTS OF ANÆSTHETIC

The after-effects seldom vary. Some patients have slight delirium and all suffer from violent headache, which usually lasts from twenty-four to forty-eight hours. This condition may be relieved by giving from five to ten grains of antipyrine.

Major as well as minor operations are performed under this anæsthetic, thorough asepsis being observed in every detail.

DR. HOWARD KELLY'S METHOD OF CATHETERIZATION

A GLASS catheter is used, having been prepared for use by boiling five minutes in a soda solution.

The nurse then scrubs her hands carefully, places the patient on the bed-pan, exposes the vulva, and separates the labia so as to expose the urethral orifices. She now takes up a pledget of cotton, saturated with boric acid solution, in the grasp of the forceps, and with this thoroughly cleanses the urethral orifice. This is repeated with another pledget when the patient is about to be catheterized. She now draws two sterile finger cots (rubber glove fingers) over the thumb and index-finger of the right hand and, thus well protected, grasps the catheter by its outer end and removes it from the pan in which it has just been boiled, and gently introduces it into the urethra, allowing it to take its own way into the bladder, never under any circumstances using force.—*Johns Hopkins Hospital Bulletin.*